

properly process a web page having the two groups and the atomics in each group. Now, another example of the generalization process will be described.

Figures 11A - 11D illustrate a third generalizer example for generalizing multiple groups in a row-wise manner in accordance with the invention. Figure 11a illustrates a syntax 210 of the groups including a first group 212 and a second group 214 wherein each group has rows and columns and each group has atomics 216 as shown. In this case, to generalize the multiple groups, a user may select at least two groups that each have the same number of elements. As shown in Figure 11b, user selected content 218 is shown while generalized content 220 is shown in Figure 11c. As shown in Figure 11b, a user has selected the "Matrimonial" group and the "Tech-I" group and at least two items in each group. The content that needs to be generalized based on these user selections is shown in Figure 11c wherein there are one or more groups representing columns in a table and the elements are arranged in a row-wise manner. Figure 11d illustrates a tree 222 including the multiple groups with multiple elements wherein the user selected groups and user selected elements in each group are shaded.

Using the generalizer system in accordance with the invention, the above content may be generalized. Here the XHTML page contains a number of columns of groups with each group having the same number of items as shown above. In this case, it is possible to generalize at a group level called (row-wise generalization) rather than an item level. As described above, a user selects two columns of groups to generalize all columns. The number of items generalized per group will depend on the number of items per group chosen by the user. In the example above, only two items per group will be generalized.

Figures 12A - 12C illustrate a fourth generalizer example for generalizing multiple groups in a column-wise manner in accordance with the invention. Figure 12a illustrates a syntax 230 of the groups including a first group 232 and a second group 234 wherein each group has rows and columns and each group has atomics 236 as shown. As above, to generalize the multiple groups, a user may select at least two groups that each have the same number of elements. As shown in Figure 11b, user selected content 238 and generalized content 240 are shown. As shown in Figure 11b, a user has selected the "National" group and the "World" group and at least two items (stories in this example) in each group. Figure 11c illustrates a tree 242 including the multiple groups with multiple elements wherein the user selected groups and user selected elements in each group are shaded.

Here the XHTML page contains a number of rows of groups with each group having the same number of items as shown above. In this case, it is possible to generalize at a group level (column-wise generalization) rather than an item level. User selects two rows of groups to generalize. The number of items generalized per group will depend on the number of items per group chosen by the user. In the example above, only two items per group will be generalized.

Figures 13A - 13D illustrate a fifth generalizer example for generalizing multiple groups with multiple atomics using diagonal generalization in accordance with the invention. Figure 13a illustrates a syntax 250 of the groups including a first group 252 and a second group 254 wherein each group has rows and columns and each group has atomics 256 as shown. As above, to generalize the multiple groups, a user may select at least two groups that each have the same number of elements. As shown in Figure 13b, user selected content 258 is shown and Figure 13c

shows generalized content 260. As shown in Figure 11b, a user has selected the “Fringe” group and the “Multimedia Showcase” group and at least two items (stories in this example) in each group. Figure 13d illustrates a tree 262 including the multiple groups with multiple elements wherein the user selected groups and user selected elements in each group are shaded.

5           Here the XHTML page contains a table of groups with each group having the same number of items as shown above. In this case, it is possible to generalize at a group level (diagonal generalization) rather than an item level. User selects two diagonal groups to generalize. The number of items generalized per group will depend on the number of items per group chosen by the user. In the example above, only two items per group will be generalized.

10           Figure 14A - 14D illustrate a sixth generalizer example for generalizing multiple groups with multiple atomics using nested generalization in accordance with the invention. Figure 14a illustrates a syntax 270 of the groups including a first group 272 and a second group 274 wherein each group has rows and columns and each group has atomics 276 as shown. As above, to generalize the multiple groups, a user may select at least two groups having at least two atomics.

15           As shown in Figure 14b, user selected content 278 is shown and Figure 14c shows generalized content 280. As shown in Figure 14b, a user has selected the “Finance” group and the “Government” group and at least two items in each group. Figure 14d illustrates a tree 282 including the multiple groups with multiple elements wherein the user selected groups and user selected elements in each group are shaded.

20           Here the XHTML page contains a table of groups with each group having varying number of items as shown above. In this case, two levels of generalization are necessary, both at an item